



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CLASS I PERMIT

COMPANY NAME: American Woodmark Corporation
FACILITY NAME: American Woodmark Corporation - Kingman, AZ Plant
PERMIT NUMBER: 1001540
DATE ISSUED:
EXPIRATION DATE:

SUMMARY

This operating permit is issued to American Woodmark Corporation (AWC), the Permittee, for construction and operation of an expanded wood cabinet manufacturing facility, located at 4475 Mohave Airport Drive in Kingman, Mohave County, Arizona. The AWC Kingman facility previously operated as a minor source under Air Quality Class II Permit No. 100969. This Class I construction and operation permit is issued in response to AWC's July 23, 2001 permit application for the expansion of coating operations at the Kingman Plant and significant revision of the source's air permit.

The expanded AWC Kingman facility will consist of an approximate 150,000 square foot structure containing four finishing lines used for surface preparation and coating of pre-fabricated cabinet parts. Pre-fabricated unfinished parts will be shipped to the AWC Kingman facility where these parts will undergo a series of finishing steps and then be assembled and shipped to the end-user. The expanded AWC Kingman facility production capacity will be 857 cabinets per hour and 1,560,000 cabinets per year.

Four finishing lines will comprise the expanded AWC Kingman facility operations: Finishing Line 1 - Main Single Pass Line; Finishing Line 2 - Pigment Application Line; Finishing Line 3 - Expedite Line; and Finishing Line 4 - Special Glazing Line. In general, each finishing line will involve a series of process steps including some or all of the following: 1) sanding and cleaning [automatic machine sanding/cleaning or manual], 2) coating application [i.e., stain, toner, sealer, and topcoat application in automatic spray booths or roll coaters], and 3) drying [curing ovens]. Following coating operations, finished parts will be assembled into complete cabinets and shipped to end-users.

Pollution prevention and control measures and equipment to be utilized by AWC at the expanded Kingman facility include the use of three baghouse dust collection systems for capture and control of particulate matter generated by woodworking and sanding/cleaning operations, the use of high transfer efficiency coating application equipment (e.g., High Volume-Low Pressure (HVLP) spray guns), the use of low-Hazardous Air Pollutant (HAP) coatings, dry filters or water wash systems to control overspray from the spray booths, and a regenerative thermal oxidizer (RTO) to control volatile organic compound (VOC) emissions from Finishing Lines 1 and 4.

The expanded American Woodmark Corporation Kingman Plant is classified as a Class I, Major Source pursuant to A.A.C. R18-2-101.64. The potential emission rate of volatile organic compounds (VOC) is greater than 100 tons per year and the potential emission rates of individual and combined HAP are

greater than 10 and 25 tons per year, respectively. By voluntary restriction, total allowable VOC emissions are limited by enforceable permit conditions to below 250 tons per year. As such, the AWC facility does not constitute a major source as defined under Arizona Administrative Code (A.A.C.) R18-2-401, for the purposes of the Prevention of Significant Deterioration program under Title I, Part C of the Clean Air Act and A.A.C. R18-2-406. The facility is subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart JJ - Wood Furniture Manufacturing Operations (40 CFR 63.800 and A.A.C. R18-2-1101.B.23).

This Class I permit is issued in accordance with Title V of the Clean Air Act, and Title 49, Chapter 3 of the Arizona Revised Statutes (A.R.S.). All definitions, terms, and conditions used in this permit conform to those in the A.A.C. R18-2-101 et. seq. and Title 40, Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the A.A.C. All material permit conditions have been identified within the permit by a double underline. All terms and conditions in this permit are enforceable by the Administrator of the United States Environmental Protection Agency (U.S. EPA), except for those terms and conditions that have been designated as "State requirements."

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ATTACHMENT “A”: GENERAL PROVISIONS

Air Quality Control Permit Number 1001540
for
American Woodmark Corporation

I. PERMIT EXPIRATION AND RENEWAL [ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

- A.** This permit is valid for a period of five years from the date of issuance.
- B.** The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

II. COMPLIANCE WITH PERMIT CONDITIONS [A.A.C. R18-2-306.A.8.a and b]

- A.** The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona air quality statutes and air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE [A.A.C. R18-2-306.A.8.c, -321.A.1, and -321.A.2]

- A.** The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- B.** The permit shall be reopened and revised under any of the following circumstances:
 - I.** Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless an application for renewal has been submitted pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five year permit term.

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit.
 3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
- C. Proceedings to reopen and reissue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five year permit term.

IV. POSTING OF PERMIT

[A.A.C. R18-2-315]

- A. The Permittee shall post this permit or a certificate of permit issuance where the facility is located in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
1. Current permit number; or
 2. Serial number or other equipment ID number that is also listed in the permit to identify that piece of equipment.
- B. A copy of the complete permit shall be kept on site.

V. FEE PAYMENT

[A.A.C. R18-2-306.A.9 and -326]

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

[A.A.C. R18-2-327.A and B]

- A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.
- B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

VII. COMPLIANCE CERTIFICATION

[A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

- A.** The Permittee shall submit a compliance certification to the Director semiannually which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;
 2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period, and whether the methods or other means provide continuous or intermittent data;
 3. The status of compliance with the terms and conditions of this permit for the period covered by the certification, based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;
 4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;
 5. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
 6. Other facts the Director may require to determine the compliance status of the source.
- B.** A copy of all compliance certifications shall also be submitted to the EPA Administrator.
- C.** If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above.

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS [A.A.C. R18-2-304.H]

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

IX. INSPECTION AND ENTRY

[A.A.C. R18-2-309.4]

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

- A.** Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
- B.** Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
- C.** Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- D.** Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
- E.** Record any inspection by use of written, electronic, magnetic and photographic media.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

[A.A.C. R18-2-304.C]

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

XI. ACCIDENTAL RELEASE PROGRAM

[40 CFR Part 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

[A.A.C. R18-2-310.01.A and -310.01.B]

I. Excess emissions shall be reported as follows:

- a.** The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:
 - (1)** Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.

- (2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.(1) above.

b. The report shall contain the following information:

- (1) Identity of each stack or other emission point where the excess emissions occurred;
- (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
- (3) Date, time and duration, or expected duration, of the excess emissions;
- (4) Identity of the equipment from which the excess emissions emanated;
- (5) Nature and cause of such emissions;
- (6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and
- (7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

[A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time the deviation occurred.

C. Emergency Provision

[A.A.C. R18-2-306.E]

1. An “emergency” means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was being properly operated at the time;
 - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Compliance Schedule

[ARS § 49-426.I.5]

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown [A.A.C. R18-2-310]

1. Applicability

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
- d. Contained in A.A.C. R18-2-715.F; or
- e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
- d. The amount and duration of the excess emissions (including any

bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

3. *Affirmative Defense for Startup and Shutdown*

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
 - (1) The excess emissions could not have been prevented through careful and prudent planning and design;
 - (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
 - (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a

manner consistent with good practice for minimizing emissions;

- (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- (7) All emissions monitoring systems were kept in operation if at all practicable; and
- (8) The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

4. *Affirmative Defense for Malfunctions During Scheduled Maintenance*

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2 above.

5. *Demonstration of Reasonable and Practicable Measures*

For an affirmative defense under Condition XII.E.2 or XII.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

XIII. RECORD KEEPING REQUIREMENTS

[A.A.C. R18-2-306.A.4]

- A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

1. The date, place as defined in the permit, and time of sampling or measurements;

2. The date(s) analyses were performed;
3. The name of the company or entity that performed the analyses;
4. A description of the analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

XIV. REPORTING REQUIREMENTS

[A.A.C. R18-2-306.A.5.a]

The Permittee shall submit the following reports:

- A.** Compliance certifications in accordance with Section VII of Attachment “A”.
- B.** Excess emission, permit deviation, and emergency reports in accordance with Section XII of Attachment “A”.
- C.** Other reports required by any condition of Attachment “B”.

XV. DUTY TO PROVIDE INFORMATION

[A.A.C. R18-2-304.G and -306.A.8.e]

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XVI. PERMIT AMENDMENT OR REVISION

[A.A.C. R18-2-318, -319, and -320]

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVII, as follows:

- A. Administrative Permit Amendment (A.A.C. R18-2-318);
- B. Minor Permit Revision (A.A.C. R18-2-319); and
- C. Significant Permit Revision (A.A.C. R18-2-320).

The applicability and requirements for such action are defined in the above referenced regulations.

XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION

[A.A.C. R18-2-306.A.4 and -317]

- A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:
 - 1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(19);
 - 2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
 - 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
 - 4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A; and
 - 5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements.
- B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVII.A and XVII.C of this Attachment.
- C. For each change under Conditions XVII.A and XVII.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change as possible or, if advance notification is not practicable, as soon after the change as possible.

- D.** Each notification shall include:
1. When the proposed change will occur;
 2. A description of the change;
 3. Any change in emissions of regulated air pollutants; and
 4. Any permit term or condition that is no longer applicable as a result of the change.
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made Conditions XVII.A and XVII.B above.
- F.** Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section.
- G.** Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, do not satisfy Condition XVII.A above.

XVIII. TESTING REQUIREMENTS

[A.A.C. R18-2-312]

- A.** The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.
- B. Operational Conditions During Testing**
- Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.
- C.** Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.
- D. Test Plan**
- At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation which demonstrates good cause must be submitted.

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

XIX. PROPERTY RIGHTS

[A.A.C. R18-2-306.A.8.d]

This permit does not convey any property rights of any sort, or any exclusive privilege.

XX. SEVERABILITY CLAUSE

[A.A.C. R18-2-306.A.7]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

XXI. PERMIT SHIELD

[A.A.C. R18-2-325]

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to minor revisions pursuant to Condition XVI.B of this Attachment and any facility changes without a permit revision pursuant to Section XVII of this Attachment.

XXII. PROTECTION OF STRATOSPHERIC OZONE

[40 CFR Part 82]

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

ATTACHMENT "B": SPECIFIC CONDITIONS

Air Quality Control Permit Number 1001540
for
American Woodmark Corporation

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN

This permit is issued pursuant to the provisions of the Arizona Revised Statutes (ARS) and constitutes an Installation Permit for the purpose of the applicable State Implementation Plan.

II. IDENTIFICATION OF EMISSION UNITS, EMISSION POINTS, AND CONTROL DEVICES

Emission Point ID	Emission Unit Name/Description	Air Pollution Control Device(s)
<u>Finishing Line 1: Main Single Pass Line</u>		
RTO-1	Seven (7) Automatic Spray Booths: 1.13a / 1.13b 1.20a / 1.20b 1.22a / 1.22b 1.27a / 1.27b 1.30a / 1.30b 1.35a / 1.35b 1.40a / 1.40b <u>Two (2) Stain Wiping Machines</u> ⁴ 1.14 / 1.15 1.23 / 1.24 <u>Seven (7) Curing Ovens</u> 1.16 1.21 1.25 1.28a / 1.28b 1.31a / 1.31b 1.36a / 1.36b 1.41a / 1.41b	Dry Filter ¹ , RTO ² Dry Filter ¹ , RTO ² Dry Filter ¹ , RTO ² Water Wash ³ , RTO ² Water Wash ³ , RTO ² Water Wash ³ , RTO ² Water Wash ³ , RTO ² RTO ² RTO ² RTO ² RTO ² RTO ² RTO ² RTO ² RTO ² RTO ² RTO ²
EXH - 1	Vertical Oven Cool Zone (1.28c)	
EXH-2	Vertical Oven Cool Zone (1.31c)	
EXH-3	Vertical Oven Cool Zone (1.36c)	
EXH-4	Vertical Oven Cool Zone (1.41c)	

Emission Point ID	Emission Unit Name/Description	Air Pollution Control Device(s)
BP-1 through BP-7	Bypass Dampers 1 - 7	Normally maintained in closed position (i.e., gases vented to RTO).
BH-3	<u>Four (4) Automatic Sanding Machines</u> 1.10 / 1.11 1.17 / 1.18 1.32 / 1.33 1.37 / 1.38 <u>Five (5) Panel Cleaning Machines</u> 1.12 1.19 1.26 1.34 1.39	Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵
<u>Finishing Line 2: Pigment Application Line</u>		
EXH-5	Automatic Spray Booth (2.12a / 2.12b)	
EXH-6	Curing Oven (2.13a, b, c)	
BH-3	Automatic Denibbing Machine (2.10) Panel Cleaning Machine (2.11) Downdraft Manual Sanding Conveyor (2.14)	Baghouse Filter ⁵ Baghouse Filter ⁵ Baghouse Filter ⁵
<u>Finishing Line 3: Expedite Line</u>		
EXH-7	Manual Spray Booth (3.10)	
EXH-8	Oven Enclosure (3.11)	
EXH - 9	Manual Spray Booth (3.12)	
EXH-10	Oven Enclosure (3.13)	

Emission Point ID	Emission Unit Name/Description	Air Pollution Control Device(s)
<u>Finishing Line 4: Glazing Line</u>		
RTO-1	Two (2) Automatic Spray Booths 1.10a / 1.10b 4.15a / 4.15b One (1) Reverse Roll Coater (4.11) One (1) Wiping Conveyor (4.12) <u>Two (2) Curing Ovens</u> 4.13a 4.16a / 4.16b	Dry Filter ¹ , RTO ² Water Wash ³ , RTO ² RTO ² RTO ² RTO ² RTO ²
EXH-11	Curing Oven (4.13b)	
EXH-12	Curing Oven (4.16c)	
BP-10	Bypass Damper	
BP-11	Bypass Damper	
BH-3	Panel Cleaning Machine (4.14)	Baghouse Filter ⁵
<u>Pump Room</u>		
EXH-13	Pump Room Exhaust	
<u>Woodworking Operations</u>		
BH-1	Milling equipment (group)	Baghouse Filter ⁶
BH-2	Drilling equipment (group)	Baghouse Filter ⁷
<u>Fuel Burning Equipment</u>		
PB-1	Package Boiler - 1	
PB-2	Package Boiler - 2	
PB-3	Package Boiler - 3	
CRV-1	Co-Ray-Vac - 1	
RTO-1	Regenerative Thermal Oxidizer	

¹ Cefla Spray Machine Model ROC 3D, ROT 10+10 filters or equivalent

² MEGTEC Systems ENTERPRISE II® -700-95 regenerative thermal oxidizer or equivalent.

³ Cefla Self-Cleaning System® Scrubber or equivalent.

⁴ Includes two downdraft manual stain wiping machines vented to RTO-1 via upstream process unit.

⁵ Particulate matter emissions from Finishing Line 1 - 4 sanding and cleaning operations are controlled by Baghouse Filter BH-3 . This baghouse filter is vented indoors, within the finishing line building enclosure.

⁶ Particulate matter emission from drilling operations are controlled by Baghouse Filter BH-1.

⁷ Particulate matter emission from drilling operations are controlled by Baghouse Filter BH-2.

III. FACILITY WIDE REQUIREMENTS

A. Volatile Organic Compounds (VOC) Emission Limitations/Standards

For the purpose of establishing a voluntary facility-wide VOC emissions cap to avoid otherwise applicable requirements under A.A.C. R18-2, Article 4 for new major sources (prevention of significant deterioration, PSD), the Permittee shall comply with the following material usage and emissions limitations:

1. Total facility-wide VOC emissions shall not exceed 241 tons per consecutive 12-month period, calculated as a monthly rolling total.
[A.A.C. R18-2-306.01; R18-2-306.02; R18-2-331 (Material Permit Condition)]

2. The Permittee shall burn only natural gas fuel in the following emission units:

- (1) PB-1
- (2) PB-2
- (3) PB-3
- (4) CRV-1
- (5) RTO-1

[A.A.C. R18-2-306.01]

B. Air Pollution Control Requirements

[A.A.C. R18-2-306.01.B; R18-2-306.02.C; R18-2-331
(Material Permit Conditions indicated by double underline)]

1. The Permittee shall install, operate, and maintain a VOC capture system and a regenerative thermal oxidizer (Emission Unit ID: RTO-1) to control VOC emissions from the following finishing operation emission units:

Finishing Line 1:

Automatic Spray Booths: 1.13a, 1.13b, 1.20a, 1.20b, 1.22a, 1.22b, 1.27a, 1.27b, 1.30a, 1.30b, 1.35a, 1.35b, 1.40a, and 1.40b

Stain Wiping Machines: 1.14, 1.15, 1.23, and 1.24

Curing Ovens: 1.16, 1.21, 1.25, 1.28a, 1.28b, 1.31a, 1.31b, 1.36a, 1.36b, 1.41a, and 1.41b

Finishing Line 4:

Automatic Spray Booths: 4.10a, 4.10b, 4.15a, and 4.15b

Reverse Roll Coater: 4.11

Wiping Conveyor: 4.12

Curing Ovens: 4.13a, 4.16a, and 4.16b

2. The VOC capture system and the regenerative thermal oxidizer (Emission Unit ID: RTO-1) required under Condition III.B.1 of this Attachment shall be operated at all times that VOC containing materials are being processed in the controlled finishing lines (Finishing Lines 1 and 4).
3. Each controlled finishing line emission unit bypass damper shall be maintained in a closed position such that exhaust gases are routed to the regenerative thermal oxidizer (Emission Unit ID: RTO-1) during all times that VOC containing materials/products are being processed in that emission unit or the upstream VOC module spray booth. A VOC module is defined as a discrete series of finishing equipment beginning with coating application unit(s) [e.g., spray booth, roll coater, and/or wiping machines/conveyors] and followed by associated downstream curing oven(s).
4. The VOC capture system required under Condition III.B.1 shall be designed and operated to achieve a minimum capture efficiency of 90 percent by weight for Finishing Lines 1 and 4. Capture efficiency shall be determined based on VOC mass input to each controlled finishing line. Material and VOC input shall be tracked separately as required by this permit.
5. The regenerative thermal oxidizer (Emissions Unit ID: RTO-1) shall be designed and operated to achieve a minimum VOC destruction efficiency of 95 percent by weight.

C. Monitoring, Recordkeeping, and Reporting

[A.A.C. R18-2-306.A.3,4 (40 CFR Part 64 - CAM); R18-2-306.02.C; R18-2-331
(Material Permit Conditions indicated by double underline)]

1. The Permittee shall install, operate, and maintain a continuous static pressure monitoring device on each Finishing Line 1 and 4 spray booth and at the common exhaust duct at the inlet to the regenerative thermal oxidizer (Emission Unit ID: RTO-1) or at an equivalent location. For sequenced and common exhaust VOC modules, the static pressure monitoring device shall be located in the furthest upstream spray booth or at an equivalent location.
2. The Permittee shall continuously monitor the static pressure of each controlled VOC module enclosure, including all emission units defined in Condition III.B.1 of this Attachment, and at the common exhaust duct at the inlet to the regenerative thermal oxidizer (Emission Unit ID: RTO-1).
3. The static pressure at each VOC capture system monitoring location shall be maintained at a negative reading (i.e., less than ambient pressure).
4. The minimum negative static pressure value and/or range for each VOC capture system monitoring location shall be established in accordance with Conditions III.D.2 and III.D.5 of this Attachment and the Permittee's approved CAM plan.

5. The Permittee shall continuously record the output of the static pressure monitoring system located at the inlet to the regenerative thermal oxidizer (Emission Unit ID: RTO-1) on a circular chart or other permanent format to be maintained on site readily available for inspection. Each period longer than 15 consecutive minutes during which the regenerative thermal oxidizer inlet static pressure falls below the minimum value or range determined pursuant to Condition III.C.4 of this Attachment shall constitute an excursion.
6. The Permittee shall observe and record the readings from each VOC module enclosure static pressure monitoring system at least once per controlled finishing line operating day. The Permittee shall maintain a log of all static pressure readings on site readily available for inspection. Each static pressure reading in excess of the minimum negative static pressure for a given VOC capture system monitoring location shall constitute an excursion.
7. The Permittee shall take corrective action following each VOC capture system static pressure excursion. Corrective action to restore the VOC capture system to normal operation (i.e., restore all static pressure readings to below the minimum value or range established in accordance with Condition III.C.4 of this Attachment) shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than 24 hours following detection of an excursion. VOC capture system static pressure excursions and corrective action measures shall be recorded and reported in accordance with Condition XII.B of Attachment "A".
8. The Permittee shall observe and record the position of the directional indicator of each VOC collection system bypass damper at least once per controlled finishing line operating day and at the commencement of each VOC module operation. Each observation or record indicating one or more bypass dampers in the "open" position during VOC module operation shall constitute an excursion.
9. The Permittee shall perform an annual functional inspection of each VOC collection system bypass damper to include the criteria listed below. The Permittee shall maintain a log of all bypass damper functional inspections on site readily available for inspection.
 - 1) Function and range of motion of damper;
 - 2) Condition of the damper closure seal; and
 - 3) Integrity of the indicator.
10. The Permittee shall perform an inspection of damper condition and function and take corrective action within four hours of any observation indicating a bypass damper in the "open" position during respective VOC module

operation. VOC capture system bypass damper excursions and corrective action measures shall be reported in accordance with Condition XII.B of Attachment "A".

11. The Permittee shall install, operate, and maintain a continuous temperature monitoring system on the regenerative thermal oxidizer (Emission Point ID: RTO-1). The Permittee shall continuously monitor and record the temperature of the RTO combustion chamber inlet and outlet. The output of the temperature monitoring system shall be recorded on a circular chart or other permanent format and maintained on site readily available for inspection.
12. The Permittee shall operate the regenerative thermal oxidizer (Emission Unit ID: RTO-1) at a combustion chamber outlet temperature not less than the minimum temperature value or range established during the initial performance test in accordance with the conditions and procedures in Section III.D of this Attachment. This value or range shall be the temperature demonstrated to provide a destruction efficiency not less than 95% by weight for the VOCs introduced to the control device. Prior to the initial performance test, the minimum RTO combustion chamber temperature shall be 800 degrees Fahrenheit.
13. Each period longer than 15 consecutive minutes during which the regenerative thermal oxidizer (Emission Point ID: RTO-1) combustion chamber outlet temperature falls below the minimum temperature established in accordance with Condition III.C.12 of this Attachment shall constitute an excursion.
14. The Permittee shall take corrective action following each regenerative thermal oxidizer (Emission Point ID: RTO-1) combustion chamber outlet temperature excursion. Corrective action to restore the RTO to normal operation (i.e., restore the oxidizer combustion chamber outlet temperature to above the minimum temperature/range established in accordance with Condition III.C.12 of this Attachment) shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than within 24 hours following detection of an excursion. RTO combustion chamber temperature excursions and corrective action measures shall be recorded and reported in accordance with Condition XII.B of Attachment "A".
15. The Permittee shall perform a functional inspection of the regenerative thermal oxidizer (Emission Unit ID: RTO-1) at least once per controlled finishing line operating day. The functional inspection shall include observation of the combustion chamber temperature monitoring system output and verification of normal operation of the RTO and all blowers and dampers in accordance with the manufacturer's specifications. Each functional inspection shall be recorded in a log and each finding indicating abnormal operation of the RTO or combustion chamber temperature

monitoring system shall constitute an excursion.

16. The Permittee shall perform an inspection and maintenance of the regenerative thermal oxidizer (Emission Unit ID: RTO-1) burner at least once per year. A record of each annual RTO burner inspection and all RTO maintenance shall be maintained on site readily available for inspection. Failure to perform an annual RTO burner inspection and any required maintenance shall constitute an excursion.
17. The Permittee shall take corrective action following the discovery of any abnormal operation of the regenerative thermal oxidizer (Emission Point ID: RTO-1) or combustion chamber temperature monitoring system as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, but no later than within 24 hours following detection of an excursion. RTO functional inspection and burner maintenance excursions and corrective action measures shall be recorded and reported in accordance with Condition XII.B of Attachment "A".
18. The Permittee shall collect and record in a log, to be maintained on site readily available for inspection, the following information for each finishing line operating day:
 - a. The operating time of controlled Finishing Lines 1 and 4;
 - b. The operating time of uncontrolled Finishing Lines 2 and 3; and
 - c. The operating time of the regenerative thermal oxidizer (Emission Point ID: RTO) and combustion chamber temperature monitoring equipment.
19. In accordance with Condition IV.C.6.b of this Attachment {40 CFR 63.806(b)}, the Permittee shall maintain records of VOC and volatile organic hazardous air pollutant (VHAP) content for each finishing material (including coatings, thinners, contact adhesives, and strippable spray booth coatings) as applied in Finishing Lines 1 through 4.
20. The Permittee shall conduct a daily accounting of all finishing materials purchased and used in finishing operations and quantify total VOC usage by material and process unit during each operating day. This accounting shall contain a breakdown of finishing material and VOC usage by Finishing Line to allow calculation of VOC emissions using the mass balance procedures contained in Attachment "C". Supporting records used to develop the accounting, including purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount of each finishing material used, shall be maintained on site readily available for inspection.
21. The Permittee shall calculate and record monthly finishing material usage and monthly VOC usage for each calendar month based on the daily accounting data collected in accordance with Condition III.C.20 of this

Attachment. The monthly finishing material usage and monthly VOC usage shall be calculated as the sum of all daily finishing material usage values and daily VOC usage values, respectively, during the calendar month and shall be expressed on a per finishing line and total finishing operation basis.

22. The Permittee shall maintain daily and monthly records of all VOC containing waste materials disposed as well as corresponding VOC content data for each disposed waste material (expressed as a weight percentage). Waste material VOC content values may be obtained from the appropriate generic waste profile maintained on site. For the purpose of this Condition, disposed shall mean containerized and shipped off site under manifest.
23. The Permittee shall calculate and record the individual month and twelve month rolling total VOC usage rate by finishing line and in total (Finishing Lines 1 through 4) each month. VOC usage ($I_{\text{FINISHING LINE}}$) shall be calculated using the mass balance calculation procedures contained in Attachment "C".
24. Each monthly record of total combined Finishing Line 1 and Finishing Line 4 VOC usage in excess of 947 tons per year, calculated as a monthly rolling 12-month total, shall constitute an excursion. Each such excursion shall trigger the requirement that the Permittee, within 10 business days of the finding, verify compliance with the facility-wide VOC emission limit under Condition III.A.1 of this Attachment. VOC usage excursions and compliance verification measures shall be recorded and reported in accordance with Condition XII.B of Attachment "A".
25. Each monthly record of total combined Finishing Line 2 and Finishing Line 3 VOC usage in excess of 99.5 tons per year, calculated as a monthly rolling 12-month total, shall constitute an excursion. Each such excursion shall trigger the requirement that the Permittee, within 10 business days of the finding, verify compliance with the facility-wide VOC emission limit under Condition III.A.1 of this Attachment. VOC usage excursions and compliance verification measures shall be recorded and reported in accordance with Condition XII.B of Attachment "A".
26. The Permittee shall use the monthly usage records required in Condition III.C.21 of this Attachment and the mass balance calculation procedures contained in Attachment "C" to calculate total monthly VOC emissions. In accordance with Condition III.D of this Attachment, the Permittee shall make adjustments, as necessary, to the mass VOC capture efficiency and regenerative thermal oxidizer (Emission Point ID: RTO-1) destruction efficiency based on the most recent performance test.
27. The Permittee shall record the individual month and twelve month rolling total facility-wide VOC emission rate each month.

28. The Permittee shall notify the Director in writing if VOC emissions exceed 20.1 tons in any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain compliance with the emission limit specified in Condition III.A.1 of this Attachment.
29. Each calendar month during which the rolling 12-month total VOC emissions exceed 241 tons constitutes an exceedance. Exceedances shall be reported to the Director in accordance with Condition XII.A of Attachment "A".
30. Each individual month and twelve month rolling total VOC emission rate in the reporting period shall be included in the semiannual compliance certification required by Condition VII of Attachment "A".
31. In accordance with the requirements of 40 CFR 64.6, the Permittee shall submit to the Director for approval a complete compliance assurance monitoring (CAM) plan for the facility-wide VOC emission limit contained in Condition III.A.1 of this Attachment. The CAM plan shall meet the requirements of 40 CFR 64.3 and shall be submitted as soon as practicable, but no later than 180 days following the issuance of this permit. The Permittee shall implement the CAM plan no later than 30 days following approval by the Director, or upon startup of finishing operations, whichever is later.
32. All compliance records, calculations, and supporting documentation shall be maintained in accordance with Condition XIII of Attachment "A".

D. Source Testing

[A.A.C. R18-2-311; R18-2-312]

1. Within 60 days after the achieving the capability to operate Finishing Lines 1 and 4 at maximum production rate on a sustained basis but no later than 180 days after initial startup, the Permittee shall conduct an initial performance test to demonstrate compliance with the minimum VOC capture efficiency and regenerative thermal oxidizer (Emission Point ID: RTO-1) VOC destruction efficiency required under Conditions III.B.4 and III.B.5 of this Attachment. The initial performance test shall also serve to confirm or establish monitoring indicator values and ranges contained in the Permittee's approved CAM plan.
2. The initial performance test required under Condition III.D.1 shall include, at a minimum, the following elements:
 - a. Preparation and submittal to the Director a site specific test plan that satisfies the requirements of 40 CFR 63.7(c)(2). The test plan shall be submitted no later than 60 days prior to the proposed start date of the performance test, and is subject to approval by the Director prior to scheduling the proposed tests.

- b. Notification to the Director at least 60 days prior to the proposed date for commencing the performance test.
 - c. Testing facilities that meet the specifications in 40 CFR 63.7(d).
 - d. Testing which follows accepted reference methods set forth in applicable appendices of 40 CFR 51, 60, or 63, as specified in the facility test plan.
 - e. Three complete test runs, of not less than one hour each, for each test condition or location specified in the Test Plan. The efficiency results or other measurements from the tests shall be considered to be the mean average of three runs, unless provisions in 40 CFR 63.7 (e)(3) must be applied.
 - f. Alternative methods or deviations from accepted US EPA Reference Methods shall be subject to approval by the Director, according to 40 CFR 63.7(f).
3. For the purpose of the initial performance test required by Condition III.D.1, the capture efficiency of the VOC collection system for Finishing Lines 1 and 4 shall be determined using the applicable procedures and EPA test methods in 40 CFR Part 63 Subpart JJ (40 CFR 63.805) and 40 CFR Part 51, Appendix M - Methods 204 and 204A through 204F. Alternate procedures or methods may be approved in advance by the Director as part of the site specific test plan.
4. For the purpose of the initial performance test required by Condition III.D.1, the VOC control efficiency of the regenerative thermal oxidizer (Emission Point ID: RTO-1) shall be determined using the applicable procedures and U.S. EPA test methods in 40 CFR 63.805. Alternate procedures or methods may be approved in advance by the Director as part of the site specific test plan. The control efficiency is defined as:
- $$\text{Control Efficiency} = \frac{[\text{upstream VOC (lb/hr)} - \text{downstream VOC (lb/hr)}]}{[\text{upstream VOC (lb/hr)}]}$$
5. The product of the capture and control efficiency determined in accordance with Conditions III.D.3 and III.D.4 of this Attachment shall define the overall control efficiency (R) of the each VOC capture and control system and shall be used in the mass balance calculation procedures contained in Attachment "C".
6. Periodic Testing
- a. Following the initial performance test, the Permittee shall perform a compliance test every 24 months (2 years) to demonstrate the destruction efficiency of the Finishing Line 1 and 4 VOC control system. Each subsequent test following the initial compliance test shall be performed within 90 days of the anniversary date of the previous test.

- b. If at any time following the initial performance test, the 12-month rolling total facility-wide VOC emission rate, calculated in accordance with Conditions III.C.26 and III.C.27 of this Attachment, exceeds 70 percent of the facility-wide VOC emission limit contained in Condition III.A.1. of this Attachment, the Permittee shall perform a compliance test every 24 months (2 years) to demonstrate the capture efficiency of the Finishing Line 1 and 4 VOC control system; otherwise, VOC control system capture efficiency tests shall be conducted once every 48 months (4 years), concurrent with the VOC control system destruction efficiency test required under paragraph 6.a of this Condition.
 - c. For each compliance test, the Permittee shall meet the test plan and notification requirements in Condition III.D.2 and the procedures identified in Conditions III.D.3 through III.D.5 of this Attachment.
- 7. A comprehensive written report on the results of each required emissions test shall be signed by the person(s) responsible for the test and the responsible official and submitted to the Department within 30 days following completion of the test(s).
 - 8. Within 90 days of start-up, the Permittee shall have on-site or on-call a person that is certified in EPA Reference Method 9 opacity observations.

E. Permit Shield

Compliance with the conditions of this section shall be deemed compliance with minor source status requirements pursuant to A.A.C. R18-2-402.A and R18-2-406 in effect on the date of permit issuance.

[A.A.C. R18-2-325]

IV. FINISHING OPERATIONS

A. Particulate Matter and Opacity

- 1. Emission Limitations/Standards
 - a. Coating spray application shall be conducted only in the enclosed spray booths as identified in Condition II of this Attachment.
[A.A.C. R18-2-727.A]
 - b. Each spray booth shall be equipped with dry filter or water wash system particulate matter emission controls designed to achieve no less than 96% control of the overspray.
[A.A.C. R18-2-727.A]
 - c. The Permittee shall not cause, allow or permit to be emitted into the atmosphere, any plume or effluent which exceeds 40% opacity as

measured by EPA Reference Method 9.

[A.A.C. R18-2-702.B]

2. Air Pollution Control Requirements

- a. Each spray coating booth identified in Condition II of this Attachment shall be equipped with an enclosure and dry filter or water wash emission control system containing no less than 96% of the overspray. The dry filters and water wash systems shall be operated and maintained in accordance with manufacturer's specifications.

[A.A.C. R18-2-727.A; R18-2-306.01; R18-2-331 (Material Permit Condition)]

3. Monitoring, Recordkeeping, and Reporting

[A.A.C. R18-2-306.A.3,4]

- a. The Permittee shall perform daily inspections to verify the placement, integrity, and particle loading of the coating spray booth dry filters and the proper operation of the water wash systems.
- b. The Permittee shall perform weekly inspections of spray booth exhaust stacks to monitor overspray. If overspray discharge is detected, corrective action shall be taken as soon as practicable, but no later than 4 hours following discovery.
- c. The Permittee shall maintain a log containing records of spray booth and control system inspections, dry filter replacements, and any required corrective actions. This log shall be kept on site readily available for inspection.

4. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-727.A and R18-2-702.B.

[A.A.C. R18-2-325]

B. Volatile Organic Compounds (VOC)

1. Emission Limitations/Standards

- a. The Permittee shall not conduct any spray painting operations without minimizing organic solvent emissions. Such operations other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96% of the overspray.

[A.A.C. R18-2-727.A]

- b. The Permittee shall not dispose by evaporation more than 1.5 gallons of photochemically reactive solvent in any one day. For the

purpose of this condition, dispose shall not include unavoidable evaporative or spillage losses from the finishing operations.

[SIP Provision R9-3-527.C]

- c. A photochemically reactive solvent shall be defined as any solvent with an aggregate of more than 20 % of its total volume composed of the chemical compounds classified in the following subsections, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

- (1) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation – hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 %.
- (2) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethyl benzene: 8 %.
- (3) A combination of ethyl benzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 %.

[A.A.C. R18-727.C]

- d. Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than 1 of the groups or organic compounds described in Condition IV.B.1.c above, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-727.D]

- e. The Permittee shall not allow or permit gaseous or odorous materials from equipment, operations, or premises in such quantities or concentrations as to cause air pollution.

[A.A.C.R18-2-730.D]

- f. The Permittee shall use and transport all solvents, other organic compounds, and paints in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the ambient air so as to cause or contribute to air pollution.

[A.A.C.R18-2-730.F]

- g. Where a stack, vent or other outlet is at such a level that fumes, gas, mist, smoke, vapor, or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to the adjoining property.

[A.A.C.R18-2-730.G]

h. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-727.A, C, D, R18-2-730.D, F, G, and SIP Provision R9-3-527.C.

[A.A.C. R18-2-325]

C. Hazardous Air Pollutants (HAP): National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63 Subpart JJ - Wood Furniture Manufacturing Operations.

1. General Provisions

- a. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A (General Provisions), according to the applicability of Subpart A as defined in Table 1 of 40 CFR Part 63 Subpart JJ.

[A.A.C. R18-2-1101.B.1; R18-2-1101.B.23; 40 CFR 63.800(d)]

2. Emission Limitations

- a. The Permittee shall limit the Volatile Hazardous Air Pollutant (VHAP) emissions from finishing operations in accordance with Table 3 of 40 CFR 63 Subpart JJ as follows:

- (1) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of 0.8 pound VHAP per pound solids, as applied; or
- (2) Use compliant finishing materials in which all stains have a maximum VHAP content of 1.0 pound VHAP per pound solid, as applied. Use compliant finishing materials in which all washcoats, sealers, topcoats, basecoats, and enamels have a maximum VHAP content of 0.8 pound VHAP per pound solids, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels shall not exceed three percent (3.0%) maximum VHAP content by weight. All other thinners shall not exceed ten percent (10%) maximum VHAP content by weight; or
- (3) Use a control device to limit emissions to 0.8 pound VHAP per pound solids; or
- (4) Use a combination of 1, 2, and 3.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.802(b)(1)]

- b. The Permittee shall limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives, excluding contact adhesives applied to nonporous substrates, to no greater than 0.2 pound VHAP per pound solids, as applied.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.802(b)(2)]

- c. The Permittee shall Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 pound VOC per pound solids, as applied.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.802(b)(3)]

3. Work Practice Standards

- a. *Work practice implementation plan.* The Permittee shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture manufacturing operation and addresses each of the work practice standards presented in paragraphs (b) through (l) of 40 CFR 63.803. The plan shall be developed no more than 60 days after finishing line operations begin at the facility. The written work practice implementation plan shall be available for inspection by the Department upon request. If the Director determines that the work practice implementation plan does not adequately address each of the topics specified in paragraphs (b) through (l) of 40 CFR 63.803 or that the plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Director may require the Permittee to modify the plan.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(a)]

- b. *Operator training course.* The Permittee shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of 40 CFR Part 63 Subpart JJ. All new personnel, those hired after the compliance date of the standard, shall be trained upon hiring. All personnel shall be given refresher training annually. The affected source shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

- (1) A list of all current personnel by name and job description that are required to be trained;
- (2) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;
- (3) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and
- (4) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(b)]

- c. *Inspection and maintenance plan.* The Permittee shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:
- (1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic HAP solvents;
 - (2) An inspection schedule;
 - (3) Methods for documenting the date and results of each inspection and any repairs that were made;
 - (4) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:
 - (a) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and
 - (b) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.
- [A.A.C. R18-2-1101.B.23; 40 CFR 63.803(c)]
- d. *Cleaning and washoff solvent accounting system.* The Permittee shall develop an organic HAP solvent accounting form to record:
- (1) The quantity and type of organic HAP solvent used each month for washoff and cleaning, as defined in 40 CFR 63.801;
 - (2) The number of pieces washed off, and the reason for the washoff; and
 - (3) The quantity of spent organic HAP solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.
- [A.A.C. R18-2-1101.B.23; 40 CFR 63.803(d)]
- e. *Chemical composition of cleaning and washoff solvents.* The Permittee shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 of 40 CFR Part 63 Subpart JJ, in concentrations subject to MSDS reporting as required by OSHA.
- [A.A.C. R18-2-1101.B.23; 40 CFR 63.803(e)]
- f. *Spray booth cleaning.* The Permittee shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, or plastic filters unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.
- [A.A.C. R18-2-1101.B.23; 40 CFR 63.803(f)]

- g. *Storage requirements.* The Permittee shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(g)]
- h. *Application equipment requirements.* The Permittee shall use conventional air spray guns to apply finishing materials only under any of the following circumstances:
- (1) To apply finishing materials that have a VOC content no greater than 1.0 lb VOC/lb solids, as applied;
 - (2) For touchup and repair under the following conditions:
 - (3) The touchup and repair occurs after completion of the finishing operation; or
 - (4) The touchup and repair occurs after the application of stain and before the application of any other type of finishing material, and the materials used for touchup and repair are applied from a container that has a volume of no more than 2.0 gallons.
 - (5) When spray is automated, that is, the spray gun is aimed and triggered automatically, not manually;
 - (6) When emissions from the finishing application station are directed to a control device;
 - (7) The conventional air gun is used to apply finishing materials and the cumulative total usage of that finishing material is no more than 5.0 percent of the total gallons of finishing material used during that semiannual period; or
 - (8) The conventional air gun is used to apply stain on a part for which it is technically or economically infeasible to use any other spray application technology. The affected source shall demonstrate technical or economic infeasibility by submitting to the Administrator a videotape, a technical report, or other documentation that supports the affected source's claim of technical or economic infeasibility. The following criteria shall be used, either independently or in combination, to support the affected source's claim of technical or economic infeasibility:
 - (a) The production speed is too high or the part shape is too complex for one operator to coat the part and the application station is not large enough to accommodate an additional operator; or
 - (b) The excessively large vertical spray area of the part makes it difficult to avoid sagging or runs in the stain.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(h)]
- i. *Line cleaning.* The Permittee shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(i)]

- j. *Gun cleaning.* The Permittee shall collect all organic HAP solvent used to clean spray guns into a normally closed container.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(j)]
- k. *Washoff operations.* The Permittee shall control emissions from washoff operations by:
- (1) Using normally closed tanks for washoff; and
 - (2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(k)]
- l. *Formulation assessment plan for finishing operations.* The Permittee shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:
- (1) Identifies VHAPs from the list presented in Table 5 of 40 CFR Part 63 Subpart JJ that are being used in finishing operations at the facility;
 - (2) Establishes a baseline level of usage for each VHAP identified in Paragraph (1) of this Condition. The baseline usage level shall be the de minimis quantity listed in Table 5 of 40 CFR Part 63 Subpart JJ, or other quantity determined in accordance with the provisions of 40 CFR 63.803(1)(2).
 - (3) Tracks the annual usage of each VHAP identified in Paragraph (1) of this Condition by the facility that is present in amounts subject to MSDS reporting as required by OSHA.
 - (4) If the annual usage of the VHAP identified in Paragraph (1) of this Condition exceeds its baseline level, then the Permittee shall provide a written notification to the Director that quantifies and describes the reasons for the exceedance(s). The following explanations would relieve the Permittee from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:
 - (a) The exceedance is no more than 15.0 percent above the baseline level;
 - (b) Usage of the VHAP is below the de minimis level presented in Table 5 of 40 CFR 63 Subpart JJ (emission units routed to a control device to reduce emissions may adjust their usage based on the overall control efficiency, which is determined using the procedures in 40 CFR 63.805(d) or (e);
 - (c) The Permittee can demonstrate that the emissions do not cause ground level concentrations that exceed Arizona Ambient Air Quality Guidelines for the VHAP; or

- (d) The source of the pollutant is a finishing material with a VOC content of no more than 1.0 lb VOC/lb solids), as applied.
- (5) If none of the above explanations are the reason for the exceedance, the Permittee shall confer with the permitting authority to discuss the reason for the exceedance and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the permitting authority and Permittee. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the Permittee shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.
- (6) If the Permittee uses a VHAP of potential concern for which a baseline level has not been established then the baseline level shall be established as the de minimis level, based on 70-year exposure levels and data provided in the proposed rulemaking pursuant to Section 112(g) of the CAA, for that pollutant. A table of VHAP of potential concern is provided in Table 6 of 40 CFR Part 63 Subpart JJ. The Permittee shall track the annual usage of each VHAP of potential concern identified in this paragraph that is present in amounts subject to MSDS reporting as required by OSHA. If usage of the VHAP of potential concern exceeds the de minimis level for that chemical, then the affected source shall provide an explanation to the Director that documents the reason for exceedance of the de minimis level. If the explanation is not one of those listed in Paragraph (4) of this Condition, the Permittee shall follow the procedures in Paragraph (5) of this Condition.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.803(l)]

4. Compliance Procedures and Monitoring Requirements

- a. The Permittee shall comply with 40 CFR 63.802(b)(1) by one of the following methods:

- (1) Calculating the average VHAP content across all finishing materials used at the facility using Equation 1 of 40 CFR 63 Subpart JJ, and maintain a value of E no greater than 0.8.

$$E = (M_{c1}C_{c1} + M_{c2}C_{c2} + * * * + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + * * * + S_nW_n) / (M_{c1} + M_{c2} + * * * + M_{cn})$$

Where:

- C_c = the VHAP concentration of a finishing material (c), in kg VHAP/kg solids, as applied. Also given in lb VHAP/ lb solids;
- E = the emission limit achieved by an emission point or a set of emission points, in kg VHAP / kg solids (lb VHAP / lb solids);
- M = the mass of solids in finishing material used monthly, kg solids/month (lb solids/month);
- S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials; and
- W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(d)(1)]

(2) Use compliant finishing materials according to the following criteria:

- (a) Demonstrate that each sealer and topcoat has a VHAP content of no more than 0.8 lb VHAP/ lb solids, as applied, each stain has a VHAP content of no more than 0.8 lb VHAP/ lb solids, as applied, and each thinner contains no more than 10.0 percent VHAP by weight.
- (b) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 0.8 lb VHAP/lb solids, as applied, an each thinner contains no more than 10 percent VHAP by weight; and
- (c) Demonstrate that each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 0.8 lb VHAP/lb solids and a thinner containing no more than 3 percent HAP by weight.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(d)(2)]

(3) Use a control system with an overall control efficiency (R) such that the value of E_{ac} in Equation 4 of 40 CFR 63 Subpart JJ is not greater than 0.8.

$$R = [(E_{bc} - E_{ac})/E_{bc}](100)$$

40 CFR 63 Subpart JJ - Equation 4

The value of E_{bc} shall be calculated using Equation 1 of 40 CFR 63 Subpart JJ.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(d)(3)]

- (4) Use a combination of an averaging approach, compliant finishing materials, and control system, as defined in Paragraphs (1), (2), and (3) of this Condition.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(d)(4)]

- b. The Permittee shall comply with 40 CFR 63.802(b)(2) by using compliant contact adhesives with a VHAP content no greater than 0.2 lb VHAP/lb solids, as applied.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(e)(1)]

- c. Initial Compliance

- (1) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(1) {40 CFR 63.804(d)(1)}, shall submit the results of the averaging calculation (Equation 1 of 40 CFR 63 Subpart JJ) for the first month with the initial compliance status report required by 40 CFR 63.807(b). The first months calculation shall include data for the entire month in which the compliance date falls.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(1)]

- (2) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(2) {40 CFR 63.804(d)(2)}, shall submit an initial compliance status report, as required by 40 CFR 63.807(b), stating that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable are being used by the affected source.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(2)]

- (3) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(2) {40 CFR 63.804(d)(2)} and if applying coatings using continuous coaters, shall submit the initial compliance report(s) required in 40 CFR 804(f)(3)(i) or (ii).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(3)]

- (4) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(3) {40 CFR 63.804(d)(3)}, shall demonstrate initial compliance by:

- (a) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and

- discusses why each parameter is appropriate for demonstrating continuous compliance;
- (b) Conducting an initial performance test as required under 40 CFR 63.7 using the procedures and test methods listed in 40 CFR 63.7 and 40 CFR 63.805(c), (d), or (e);
 - (c) Calculating the overall control efficiency (R) following the procedures in 40 CFR 63.805(d) or (e); or
 - (d) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard. For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.
 - (e) The Permittee shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, during the three test runs required by 40 CFR 63.805(c)(1).
[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(4)]
- (5) For the purpose of demonstrating initial compliance with Condition IV.C.2.b of this Attachment {40 CFR 63.802(b)(2)}, the Permittee shall submit an initial compliance status report, as required by 40 CFR 63.807(b), stating that compliant contact adhesives are being used by the affected source.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(5)]
- (6) For the purpose of demonstrating initial compliance with Condition IV.C.2.c of this Attachment {40 CFR 63.802(b)(3)}, the Permittee shall submit an initial compliance status report, as required by 40 CFR 63.807(b), stating that compliant strippable spray booth coatings are being used by the affected source.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(7)]
- (7) For the purpose of demonstrating initial compliance with Condition IV.C.3 of this Attachment (40 CFR 63.803), the Permittee shall submit an initial compliance status report, stating that the work practice implementation plan has been developed and procedures have been established for implementing the provisions of the plan.
[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(f)(8)]

d. Continuous Compliance Demonstrations

- (1) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(1) {40 CFR 63.804(d)(1)}, shall demonstrate continuous compliance by submitting the results of the averaging calculation (Equation 1 of 40 CFR 63 Subpart JJ) for each month within that

semiannual period and submitting a compliance certification with the semiannual report required by 40 CFR 63.807(c).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(1)]

- (2) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(2) {40 CFR 63.804(d)(2)}, shall demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submitting a compliance certification with the semiannual report required by 40 CFR 63.807(c).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(2)]

- (3) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(2) {40 CFR 63.804(d)(2)} and if applying coatings using continuous coaters, shall demonstrate continuous compliance by following the procedures in 40 CFR 63.804(g)(3) (i) or (ii).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(3)]

- (4) The Permittee, if choosing to comply with Condition IV.C.2.a of this Attachment using the procedures contained in Condition IV.C.4.a.(3) {40 CFR 63.804(d)(3)}, shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to the manufacturer's specifications. The Permittee shall also submit the excess emissions and continuous monitoring system performance report and summary report required by 40 CFR 63.807(d) and 40 CFR 63.10(e) of Subpart A.

- (a) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with 40 CFR 63.804(f)(6)(i) is required.
- (b) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required. Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.
- (c) The Permittee shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(4)]

- (5) For the purpose of demonstrating compliance with Condition IV.C.2.b of this Attachment {40 CFR 63.802(b)(2)}, the Permittee

shall submit a compliance certification with the semiannual report required by 40 CFR 63.807(c) meeting the requirements of 40 CFR 63.804(g)(5)(i) and (ii).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(5)]

- (6) For the purpose of demonstrating compliance with Condition IV.C.2.c of this Attachment {40 CFR 63.802(b)(3)}, the Permittee shall submit a compliance certification with the semiannual report required by 40 CFR 63.807(c) meeting the requirements of 40 CFR 63.804(g)(7)(i) and (ii).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(7)]

- (7) For the purpose of demonstrating compliance with Condition IV.C.3 of this Attachment (40 CFR 63.803), the Permittee shall submit a compliance certification with the semiannual report required by 40 CFR 63.807(c) meeting the requirements of 40 CFR 63.804(g)(8)(i) and (ii).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.804(g)(8)]

5. Performance Test Methods

- a. The EPA Method 311 of appendix A of part 63 shall be used in conjunction with formulation data to determine the VHAP content of the liquid coating. Formulation data shall be used to identify VHAP present in the coating. The EPA Method 311 shall then be used to quantify those VHAP identified through formulation data. The EPA Method 311 shall not be used to quantify HAP such as styrene and formaldehyde that are emitted during the cure. The EPA Method 24 (40 CFR part 60, appendix A) shall be used to determine the solids content by weight and the density of coatings. If it is demonstrated to the satisfaction of the Director that a coating does not release VOC or HAP byproducts during the cure, for example, all VOC and HAP present in the coating is solvent, then batch formulation information shall be accepted. The Permittee may request approval from the Director to use an alternative method for determining the VHAP content of the coating. In the event of any inconsistency between the EPA Method 24 or Method 311 test data and a facility's formulation data, that is, if the EPA Method 24/311 value is higher, the EPA Method 24/311 test shall govern unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010. (Docket No. A-93-10, Item No. IV-A-1).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(a)]

- b. The Permittee, if choosing to demonstrate compliance using a capture or control device, shall determine the overall control efficiency of the control system (R) as a product of the capture and control device efficiency, using

the test methods cited in 40 CFR 63.805(c) and the procedures in 40 CFR 63.805(d) or (e).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(b)]

- c. For the initial compliance demonstration requirements of Condition IV.C.4.c.(4) of this Attachment {40 CFR 63.804(f)(4)} the following procedures shall be used:

- (1) The EPA Method 18 (40 CFR part 60, Appendix A) shall be used to determine the HAP concentration of gaseous air streams. The test shall consist of three separate runs, each lasting a minimum of 30 minutes.
- (2) The EPA Method 1 or 1A (40 CFR part 60, Appendix A) shall be used for sample and velocity traverses.
- (3) The EPA Method 2, 2A, 2C, or 2D (40 CFR part 60, Appendix A) shall be used to measure velocity and volumetric flow rates.
- (4) The EPA Method 3 (40 CFR part 60, Appendix A) shall be used to analyze the exhaust gases.
- (5) The EPA Method 4 (40 CFR part 60, Appendix A) shall be used to measure moisture in the stack gas.
- (6) The EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during the test period.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(c)]

- d. The Permittee, in performing the initial compliance demonstration required by Condition IV.C.4.c.(4) of this Attachment {40 CFR 63.804(f)(4)}, shall perform a gaseous emission test using the following procedures:

- (1) For emission units routed to a control device(s), construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP emissions can be accurately determined by the applicable test methods specified in 40 CFR 63.805(c)(1) - (6).
- (2) Determine capture efficiency from the controlled emission point(s) by capturing, venting, and measuring all HAP emission from the affected emission point(s). During a performance test, the Permittee shall isolate affected emission point(s) located in an area with other nonaffected gaseous emission sources from all other gaseous emission sources from all other gaseous emission point(s) by any of the following methods:

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(d)(1)]

- (a) Build a temporary total enclosure around the affected emission point(s); or
- (b) Use the building that houses the process as the enclosure;
- (c) Use any alternative protocol and test method provided they meet either the requirements of the data quality objective (DQO) approach or the lower confidence level (LCL) approach (refer to 40 CFR 63.801).

- (d) Shut down all nonaffected HAP emission point(s) and continue to exhaust fugitive from the affected emission point(s) through any building ventilation system and other room exhausts such as drying ovens. All exhaust air must be vented through stacks suitable for testing; or
- (e) Use another methodology approved by the Director provided it complies with the EPA criteria for acceptable under 40 CFR Part 63, Appendix A, Method 301.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(d)(2)]

- (3) Operate the control device with all affected emission points that will subsequently be delivered to the control device connected and operating at the maximum production rate.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(d)(3)]

- (4) Determine the efficiency (F) of the control device using the following equation:

$$F = \frac{\sum_{i=1}^n Q_{bi} C_{bi} - \sum_{j=1}^p Q_{aj} C_{aj}}{\sum_{i=1}^n Q_{bi} C_{bi}}$$

40 CFR 63 Subpart JJ - Equation 5

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(d)(4)]

- (5) Determine the efficiency (N) of the capture system using the following equation:

$$N = \frac{\sum_{i=1}^n Q_{bi} C_{bi}}{\sum_{i=1}^n Q_{bi} C_{bi} + \sum_{k=1}^p Q_{fk} C_{fk}}$$

40 CFR 63 Subpart JJ - Equation 6

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(d)(5)]

- (6) For the purpose of compliance with Condition IV.C.2 of this Attachment {40 CFR 63.802(b)(1)} in accordance with Condition IV.C.4.(3) of this Attachment {40 CFR 63.804(d)(3)}, compliance is demonstrated if the product of (F x N) (100) yields a value (R) such that the value of E_{ac} in Equation 4 of 40 CFR 63 Subpart JJ is no greater than 0.8.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(d)(7)]

e. An alternative method to the compliance test procedures specified in Condition IV.C.5.d of this Attachment {40 CFR 63.805(d)} is the installation of a permanent total enclosure around the affected emission point(s). A permanent total enclosure presents prima facie evidence that all HAP emissions from the affected emission point(s) are directed to the control device. Each affected source that complies using a permanent total enclosure shall:

(1) Demonstrate that the total enclosure meets the requirements in paragraphs 40 CFR 63.805(e). The Permittee shall apply to the Director for approval of an enclosure that does not meet these requirements of a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Director that all HAP emissions from the affected emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

- (a) The total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;
- (b) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;
- (c) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

- 1) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods specified in 40 CFR 63.805(c)(2) and (3). Volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and
- 2) Determine FV by the following equation:

$$FV = \frac{\sum_{j=1}^n Q_{out\ j} - \sum_{i=1}^p Q_{in\ i}}{\sum_{k=1}^q A_k}$$

40 CFR 63 Subpart JJ - Equation 7

- (d) All access doors and windows whose areas are not included as natural draft openings and are not included in the calculation of FV shall be closed during routine operation of the process.

- (2) Determine the control device efficiency using Equation 5 of 40 CFR 63 Subpart JJ, and the test methods and procedures specified in 40 CFR 63.805(c)(1) through (6).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(e)(2)]

- (3) For the purpose of compliance with Condition IV.C.2 of this Attachment {40 CFR 63.802(b)(1)} in accordance with Condition IV.C.4.(3) of this Attachment {40 CFR 63.804(d)(3)}, compliance is demonstrated if:

- (a) The installation of a permanent total enclosure is demonstrated ($N = 1$);
- (b) The value of F is determined from Equation 5 of 40 CFR 63 Subpart JJ; and
- (c) The product of ($F \times N$) (100) yields a value (R) such that the value of E_{ac} in Equation 4 of 40 CFR 63 Subpart JJ is no greater than 0.8.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.805(e)(4)]

6. Recordkeeping Requirements

- a. The Permittee shall fulfill all recordkeeping requirements of 40 CFR 63.10 of subpart A, according to the applicability criteria in 40 CFR 63.800(d).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(a)]

- b. The Permittee shall maintain records of the following:

- (1) A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in 40 CFR 63.802;
- (2) The VHAP content, in kg VHAP/kg solids (lb VHAP/lb solids), as applied, of each finishing material and contact adhesive subject to the emission limits in 40 CFR 63.802; and
- (3) The VOC content, in kg VOC/kg solids (lb VOC/lb solids), as applied, of each strippable booth coating subject to the emission limits in 40 CFR 63.802(b)(3).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(b)]

- c. The Permittee, if demonstrating compliance using the averaging approach of 40 CFR 63.804(d)(1), shall maintain copies of the averaging calculation for each month following the compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1 of 40 CFR 63 Subpart JJ.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(c)]

- d. The Permittee, if following the compliance procedures of 40 CFR 63.804(f)(3)(ii) and (g)(3)(ii), shall maintain the records required by 40 CFR 63.806(b) as well as records of the following:

- (1) Solvent and coating additions to the continuous coater reservoir;
- (2) Viscosity measurements; and
- (3) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(d)]

e. The Permittee shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:

- (1) Records demonstrating that the operator training program required by 40 CFR 63.803(b) is in place;
- (2) Records collected in accordance with the inspection and maintenance plan required by 40 CFR 63.803(d);
- (3) Records associated with the cleaning solvent accounting system required by 40 CFR 63.803(d);
- (4) Records associated with the limitations on the use of conventional air spray guns showing total finishing material usage and the percentages of finishing materials applied with conventional air spray guns for each semiannual period as required by 40 CFR 63.803(h)(5);
- (5) Record associated with the formulation assessment plan required by 40 CFR 63.803(1); and
- (6) Copies of documentation such as logs developed to demonstrate the other provisions of the work practice implementation plan are followed.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(e)]

f. The Permittee, if following the compliance method of 40 CFR 63.804(f) (4) or (g)(4), shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the value of E_{ac} required by Equation 4 of 40 CFR 63 Subpart JJ, records of the operating parameter values, and copies of the semiannual compliance reports required by 40 CFR 63.807(d).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(f)]

g. The Permittee, if following the compliance provisions of 40 CFR 63.804(f)(1), (2), (3), (5), (7) and (8) and 63.804(g)(1), (2), (3), (5), (7), and (8) shall maintain records of the compliance certification submitted in accordance with 40 CFR 63.807(c) for each semiannual period following the compliance date.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(h)]

h. The Permittee shall maintain records of all other information submitted with the compliance status report required by 40 CFR 63.9(h) and 63.807(b) and the semiannual reports required by 40 CFR 63.807(c).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(i)]

- i. The Permittee shall maintain all records in accordance with the requirements of 40 CFR 63.10(b)(1).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.806(j)]

7. Reporting Requirements

- a. The Permittee shall fulfill all reporting requirements of 40 CFR 63.7 through 63.10 of Subpart A (General Provisions) according to the applicability criteria in 40 CFR 63.800(d).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.807(a)]

- b. The Permittee, for demonstrating compliance in accordance with 40 CFR 63.804(f)(1), (2), (3), (5), (7) and (8), shall submit the compliance status report required by 40 CFR 63.9(h) of Subpart A (General Provisions) no later than 60 days after the compliance date. The report shall include the information required by 40 CFR 63.804(f)(1), (2), (3), (5), (7), and (8).

[A.A.C. R18-2-1101.B.23; 40 CFR 63.807(b)]

- c. The Permittee, for demonstrating compliance in accordance with 40 CFR 63.804(g)(1), (2), (3), (5), (7), and (8), shall submit a report covering the previous 6 months of manufacturing operations:

- (1) The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.
- (2) Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.
- (3) The semiannual reports shall include the information required by 40 CFR 63.804(g)(1), (2), (3), (5), (7), and (8), a statement of whether the affected source was in compliance or noncompliance, and, if the affected source was in noncompliance, the measures taken to bring the affected source into compliance.
- (4) The frequency of the reports required by this condition shall not be reduced from semiannually regardless of the history of the Permittee's compliance status.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.807(c)]

- d. The Permittee, if demonstrating compliance in accordance with 40 CFR 63.804(g)(4) and (6), shall submit the excess emissions and continuous monitoring system performance report and summary report required by 40 CFR 63.10(e) of subpart A. The report shall include the monitored operating parameter values required by 40 CFR 63.804(g)(4) and (6). If an emission unit listed in this permit and subject to requirements of 40 CFR 63, Subpart JJ experiences excess emissions, the report shall be submitted quarterly for at least 1 year after the excess emissions occur and until a request to reduce reporting frequency is approved, as indicated in 40 CFR 63.10(e)(3)(C). If no excess emissions occur, the report shall be submitted semiannually.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.807(d)]

- e. Should the Permittee be required to provide a written notification under 40 CFR 63.803(1)(4), it shall include one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual report period in which the usage increase occurred.

[A.A.C. R18-2-1101.B.23; 40 CFR 63.807(e)]

8. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-1101.B.1, 23.

[A.A.C. R18-2-325]

V. FUEL BURNING EQUIPMENT

A. Emission Limitations/Standards

1. Particulate Matter and Opacity

The Permittee shall not cause, allow or permit the discharge of particulate matter, caused by the combustion of fuel, from Emission Point ID Nos. PB-1, PB-2, PB-3, CRV-1, and RTO-1 in excess of the amount calculated by the following equation:

$$E = 1.02 Q^{0.769}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the heat input in million BTU per hour

The total heat input of all fuel-burning units shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-724.B, C]

2. The Permittee shall not cause, allow, or permit the opacity of any plume or effluent from any fuel burning unit to exceed 15 percent.

[A.A.C. R18-2-724.J]

B. Fuel Use Limitation

The Permittee shall burn only natural gas fuel in facility fuel burning equipment.

[A.A.C. R18-2-306.01]

C. Monitoring, Recordkeeping, and Reporting

1. For the purpose of reports required under A.A.C R18-2-310.01, the Permittee shall report all 6-minute periods in which the opacity of any fuel-burning equipment

emission point (Emission Point ID Nos. PB-1, PB-2, PB-3, CRV-1, and RTO-1) plume or effluent exceeds 15%.

[A.A.C. R18-2-724.J]

D. Source Testing

Opacity shall be measured using EPA Reference Method 9 of 40 CFR 60 Appendix A.

[A.A.C. R18-2-311.A; R18-2-702.B.2]

E. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-724.B, C, J.

[A.A.C. R18-2-325]

VI. WOODWORKING OPERATIONS

A. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. The finishing operation dust collection and baghouse control system (Emission Point ID No. BH-3) shall be vented indoors, within the finishing line building enclosure.

b. In any one hour period, the Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere from Emission Point ID Nos. BH-1 and BH-2 in excess of the amounts calculated by one of the following equations:

- (1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emission shall be determined by the following equation:

$$E = 4.1P^{0.67}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

P = the process weight in tons-mass per hour

[A.A.C. R18-2-730.A.1.a]

- (2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emission shall be determined by the following equation:

$$E = 55P^{0.11} - 40$$

where “E” and “P” are defined as indicated in Paragraph (1) of this subsection.

[A.A.C. R18-2-730.A.1.b]

- c. When applying the process weight rate equation, the Permittee shall utilize the total process weight from all similar units employing a similar type process to determine the maximum allowable emissions of particulate matter.

[A.A.C. R18-2-730.B]

- d. The Permittee shall not cause, allow or permit to be emitted into the atmosphere, any plume of effluent which exceeds 40% opacity as measured by EPA Reference Method 9.

[A.A.C. R18-2-702.B]

2. Air Pollution Control Requirements

- a. The Permittee shall continuously operate and maintain the following air pollution controls:

- (1) A baghouse dust collection and control system shall be used to control particulate matter emissions from woodworking operations pertaining to cutting wood and engineered wood.

- (2) A baghouse dust collection and control system shall be used to control particulate matter emissions from woodworking operations pertaining to drilling.

[A.A.C. R18-2-331 (Material Permit Condition)]

- b. The baghouse dust collection systems identified in Condition V.A.2.a, above, shall be operated and maintained in accordance with manufacturer's specifications and consistent with good air pollution control practice for the control of particulate matter emissions.

3. Monitoring, Recordkeeping, and Reporting

[A.A.C. R18-2-306.A.3,4)]

- a. A certified Method 9 observer shall conduct a quarterly visual survey of emissions from all process sources covered by this section when they are in operation.
- b. If the observer, during the visual survey required by Condition V.A.3.a, above, does not see any plume from any source that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall keep a record of the name of the observer, the emission source/point on which the observation was made, the date on which the observation was made, and the results of the observation.
- c. If the observer, during the visual survey required by Condition V.A.3.a, above, sees a plume from any source that on an instantaneous basis appears

to exceed the applicable opacity standard, then the observer shall take a six-minute Method 9 observation of the plume. If the six-minute opacity of the plume is less than the applicable opacity standard, the observer shall make a record of the following:

- (1) Location, date, and time of the observation;
- (2) The results of the Method 9 observation; and
- (3) The name of the observer.

If the six-minute opacity of the plume exceeds the applicable opacity standard, the observer shall do the following:

- (1) Adjust or repair the controls or equipment to reduce opacity to below the applicable opacity standard;
 - (2) Report the excess opacity emissions to the Department.
- d. The Permittee shall perform a quarterly inspection of all bags in the woodworking baghouse dust control systems (Emission Point ID Nos. BH-1 & BH-2). All defective bags shall be replaced as soon as practicable.
 - e. The Permittee shall maintain a log of dust collection and control system operation, maintenance, inspections, and any corrective actions taken. This log shall be kept on site readily available for inspection.
 - f. The Permittee shall maintain records of the number of pieces of wood and engineered wood which are processed.
 - g. The Permittee shall maintain records of the number of cabinets which are built.
 - h. All required records shall be maintained either in electronic format or in a handwritten logbook utilizing indelible ink.

4. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-730.A, B, and R18-2-702.B.

[A.A.C. R18-2-325]

VII. NON-POINT SOURCES

A. Particulate Matter and Opacity

1. Emission Limitations/Standards

- a. The Permittee shall not cause, allow or permit visible emissions from any non-point source to have an opacity in excess of 40% as measured by EPA Method 9.
[A.A.C. R18-2-610]
- b. The Permittee shall not cause, allow or permit material loading, material unloading or excavating that results in significant amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne
[A.A.C. R18-2-606]
- c. The Permittee shall not cause, suffer, allow or permit the use, repair, construction, or reconstruction of a roadway or alley without taking reasonable precautions to prevent particulate matter from becoming airborne.
[A.A.C. R18-2-605.A]
- d. The Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions to prevent particulate matter from becoming airborne.
[A.A.C. R18-2-605.B]
- e. The Permittee shall employ one or more of the following reasonable precautions or any other method as proposed by the Permittee and approved by the Director to prevent excessive amounts of particulate matter from becoming airborne:
- (1) Use approved dust suppressants, adhesive soil stabilizer, paving, covering, detouring, or wetting agents on, or bar access to open areas during construction operations, repair operations, demolition activities, clearing operations, and leveling operations, or when any earth is moved or excavated;
[A.A.C. R18-2-604.A]
 - (2) Use approved dust suppressants, adhesive soil stabilizer, or paving on, or bar access to driveways, parking areas, and vacant lots where motor vehicular activity occurs;
[A.A.C. R18-2-604.B]
 - (3) Use approved dust suppressants, temporary paving, detouring or wetting agents when a roadway is repaired, constructed or reconstructed;
[A.A.C. R18-2-605.A]
 - (4) Use dust suppressants, wetting agents, or cover the load adequately when transporting material likely to give rise to airborne dust;
[A.A.C. R18-2-605.B]

- (5) Use spray bars, hoods, wetting agents, dust suppressants, or cover when crushing, screening, handling, transporting, or conveying material that is likely to give rise to airborne dust;
[A.A.C. R18-2-606]
- (6) Adequately cover, or use wetting agents, chemical stabilization, or dust suppressants when stacking, piling, or otherwise storing organic or inorganic dust producing material;
[A.A.C. R18-2-607.A]
- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and in such a manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne;
[A.A.C. R18-2-607.B]
- (8) Use wetting agents or dust suppressants before the cleaning of site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.
[A.A.C. R18-2-804.B]

2. Permit Shield

Compliance with the terms of this section shall be deemed compliance with the following applicable requirement(s) in effect on the date of permit issuance: A.A.C. R18-2-610, R18-2-606, R18-2-604.A, B, R18-2-605.A, B, R18-2-607.A, B, and R18-2-804.B.

[A.A.C. R18-2-325]

ATTACHMENT "C": MASS BALANCE VOC EMISSIONS CALCULATION PROCEDURES

Air Quality Control Permit Number 1001540
for
American Woodmark Corporation

1 General Variable Definitions:

E_{TOTAL} = Facility wide VOC emissions (tons VOC/month)
 $I_{PROCESS}$ = VOC input to a given process/line (usage, in lb VOC/month)
 $E_{PROCESS}$ = VOC emission rate from a given process/line (lb VOC/month)
 C_c = VOC concentration of a finishing material (c), in lb VOC/lb solids, as applied.
 M = Mass of solids in finishing material used monthly, lb solids/month
 S = VOC content of a solvent, expressed as a weight fraction, added to finishing materials
 W = Amount of solvent, in pounds, added to finishing materials during the monthly period
 CW_c = VOC concentration of a waste material (c), in lb VOC/ lb material.
 MW_c = Mass of a waste material (c) removed from site under manifest, in lb/month.

2 Overall Mass Balance Equation

$$E_{\text{TOTAL}} = (E_{\text{PUMPING ROOM}} + E_{\text{FINISHING LINE 1}} + E_{\text{FINISHING LINE 2}} + E_{\text{FINISHING LINE 3}} + E_{\text{FINISHING LINE 4}} + E_{\text{OTHER}}) / 2000 \text{ lb/ton}$$

3 Finishing Operation Mass Balance Equations

3.1 Pumping Room

$$E_{\text{PR}} = (I_{\text{PR}}) * (FE_{\text{PR}})$$

Where:

$$I_{\text{FINISHING}} = M_{c1}C_{c1} + M_{c2}C_{c2} + * * * + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + * * * + S_nW_n$$
$$FE_{\text{PR}} = \text{Fraction VOC emitted from pump room operations (lb VOC emitted/lb VOC input)}$$

3.2 Finishing Line 1

$$E_{\text{FL1}} = (I_{\text{FL1}} - \text{VOC}_{\text{RECLAIM}}) * (N_{\text{FL}}) * (1 - F_{\text{RTO}})$$

Where:

$$I_{\text{FL1}} = M_{c1}C_{c1} + M_{c2}C_{c2} + * * * + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + * * * + S_nW_n$$
$$\text{VOC}_{\text{RECLAIM}} = \text{VOC material reclaimed in Finishing Line 1}$$
$$= (MW_{c1}CW_{c1} + MW_{c2}CW_{c2} + * * * + MW_{cn}CW_{cn})$$
$$N_{\text{FL}} = \text{Capture Efficiency of Finishing Line Enclosure/Collection System}$$
$$F_{\text{RTO}} = \text{Control Efficiency of Regenerative Thermal Oxidizer (RTO-1)}$$

3.3 Finishing Line 2

$$E_{\text{FL2}} = (I_{\text{FL2}} - \text{VOC}_{\text{RECLAIM}}) * (100 \%)$$

Where:

$$I_{\text{FL2}} = M_{c1}C_{c1} + M_{c2}C_{c2} + * * * + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + * * * + S_nW_n$$
$$\text{VOC}_{\text{RECLAIM}} = \text{VOC material reclaimed in Finishing Line 2}$$

3.4 Finishing Line 3

$$E_{\text{FL3}} = (I_{\text{FL3}} - \text{VOC}_{\text{RECLAIM}}) * (100 \%)$$

Where:

$$I_{\text{FL3}} = M_{c1}C_{c1} + M_{c2}C_{c2} + * * * + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + * * * + S_nW_n$$
$$\text{VOC}_{\text{RECLAIM}} = \text{VOC material reclaimed in Finishing Line 3}$$

3.5 Finishing Line 4

$$E_{\text{FL4}} = (I_{\text{FL4}} - \text{VOC}_{\text{RECLAIM}}) * (N_{\text{FL}}) * (1 - F_{\text{RTO}})$$

Where:

$$I_{\text{FL4}} = M_{c1}C_{c1} + M_{c2}C_{c2} + * * * + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + * * * + S_nW_n$$

$VOC_{RECLAIM}$ = VOC material reclaimed in Finishing Line 4

N_{FL} = Capture Efficiency of Finishing Line Enclosure/Collection System

F_{RTO} = Control Efficiency of Regenerative Thermal Oxidizer (RTO-1)

4 Other Process VOC Emissions

E_{OTHER} = Total VOC emissions (lb VOC/month) from the following sources/categories:

a) Fuel burning VOC emissions from:

- PB-1
- PB-2
- PB-3
- CRV-1
- RTO-1

b) Any and all other quantifiable VOC emissions from the source

ATTACHMENT “D”: EQUIPMENT LIST

Air Quality Control Permit Number 1001540
for
American Woodmark Corporation

Note: The Permittee shall submit to ADEQ updated information necessary to complete and/or correct data contained in the table below as soon as the information becomes available, but no later than 60 days prior to the source commence operation date.

EQUIPMENT TYPE (Number)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.	EQUIP ID NO.
Finishing Line 1						
Manual Sanding Downdraft	TBD	Cefla	TN7300/A/RBT/S	TBD	2001	Conveyor-01-DUST1-1.10
Rotary Sanding Machine	TBD	Quickwood	PRO1400V	TBD	2001	Sander-01-DUST1-1.11
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-G/S	TBD	2001	Panel Clean –01-DUST1- 1.12
Automatic Spray Booth	TBD	Cefla	RotoStain ROT 10+10	TBD	2001	Booth-01-VOC1-1.13a
Belt Cleaner	TBD	Cefla	RotoStain ROT 10+10	TBD	2001	Belt Cleaner-01-VOC1- 1.13b
Stain Wiping Machine	TBD	Sorbini	VS/26-4C/S	TBD	2001	Stain Wiper-01-VOC1- 1.14
Manual Stain Wiping Downdraft	TBD	Sorbini	VS/26-4C/S	TBD	2001	Conveyor-01-VOC1-1.15
Drying Oven	TBD	Cefla	PF7400/6/S	TBD	2001	Oven-01-VOC1-1.16
Manual Sanding Downdraft	TBD	Cefla	TN3500/A	TBD	2001	Conveyor-01-DUST2-1.17
Rotary Sanding Machine	TBD	Quickwood	PRO1400V	TBD	2001	Sander-01-DUST2-1.18
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-G/S	TBD	2001	Panel Cleaner-01-DUST2- 1.19
Automatic Spray Booth	TBD	Cefla	RotoStain ROT 10+10	TBD	2001	Booth-01-VOC2-1.20a
Belt Cleaner	TBD	Cefla	RotoStain ROT 10+10	TBD	2001	Belt Cleaner –01-VOC2- 1.20b
Drying Oven	TBD	Cefla	FEV E 2/7 & TN 22000	TBD	2001	Oven-01-VOC2-1.21
Automatic Spray Booth	TBD	Cefla	RotoStain ROT 10+10	TBD	2001	Booth-01-VOC3-1.22a

EQUIPMENT TYPE (Number)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.	EQUIP ID NO.
Belt Cleaner	TBD	Cefla	RotoStain ROT 10+10	TBD	2001	Belt Cleaner-01-VOC3-1.22b
Stain Wiping Machine	TBD	Sorbini	VS/26-4C/S	TBD	2001	Stain Wiper-01-VOC3-1.23
Manual Stain Downdraft	TBD	Cefla	TN 5500/W	TBD	2001	Conveyor-01-VOC3-1.24
Drying Oven	TBD	Cefla	PF7400/6/S	TBD	2001	Oven-01-VOC3-1.25
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-G/S	TBD	2001	Panel Clean -01-DUST3-1.26
Automatic Spray Booth	TBD	Cefla	SGM 12+12	TBD	2001	Booth-01-VOC4-1.27a
Belt Cleaner	TBD	Cefla	SGM 12+12	TBD	2001	Belt Cleaner -01-VOC4-1.27b
Drying Oven - Flash Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Flash Zone-01-VOC4-1.28a
Drying Oven - Cure Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cure Zone-01-VOC4-1.28b
Drying Oven - Cool Down ZoneTBD	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cure Zone-01-VOC4-1.28c
Roll Coater	TBD	Sorbini	T/20-2MF/RE/RU	TBD	2001	Roll Coater-01-1.29
Automatic Spray Booth	TBD	Cefla	SGM 12+12	TBD	2001	Booth-01-VOC5-1.30a
Belt Cleaner	TBD	Cefla	SGM 12+12	TBD	2001	Belt Cleaner-01-VOC5-1.30b
Drying Oven - Flash Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Flash Zone-01-VOC5-1.31a
Drying Oven - Cure Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cure Zone-01-VOC5-1.31b
Drying Oven - Cool Down ZoneTBD	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cool Zone -01-VOC5-1.31c
Rotary Sanding Machine	TBD	Quickwood	PRO1400V	TBD	2001	Sander -01-DUST4-1.32
Manual Sanding Downdraft	TBD	Cefla	TN6000/A	TBD	2001	Conveyor-01-DUST4-1.33
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-G/S	TBD	2001	Panel Cleaner -01-DUST4-1.34
Automatic Spray Booth	TBD	Cefla	SGM 12+12	TBD	2001	Booth-01-VOC6-1.35a
Belt Cleaner	TBD	Cefla	SGM 12+12	TBD	2001	Belt Cleaner-01-VOC6-1.35b

EQUIPMENT TYPE (Number)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.	EQUIP ID NO.
Drying Oven - Flash Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Flash Zone-01-VOC6-1.36a
Drying Oven - Cure Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cure Zone-01-VOC6-1.36b
Drying Oven - Cool Down ZoneTBD	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cool Down-01-VOC6-1.36c
Manual Sanding Downdraft	TBD	Cefla	TN 5500/A	TBD	2001	Conveyor-01-DUST5-1.37
Rotary Sanding Machine	TBD	Quickwood	PRO1400V	TBD	2001	Sander-01-DUST5-1.38
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-G/S	TBD	2001	Panel Cleaner -01-DUST5-1.39
Automatic Spray Booth	TBD	Cefla	SGM 12+12	TBD	2001	Booth-01-VOC7-1.40a
Belt Cleaner	TBD	Cefla	SGM 12+12	TBD	2001	Belt Cleaner -01-VOC7-1.40b
Drying Oven - Flash Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Flash Zone-01-VOC7-1.41a
Drying Oven - Cure Zone	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	2001	Oven Cure Zone-01-VOC7-1.41b
Drying Oven - Cool Down ZoneTBD	TBD	Cefla	FV4/3500/133/12 2/AER/S	TBD	NA	Oven Cool Down-01-VOC7-1.41c
Finishing Line 2						
Manual Sanding Downdraft Conveyor	TBD	Cefla	TN4000/A TN4500/A/RU	TBD	1999	Conveyor-02-DUST6-2.14
Denibbing Sanding Machine	TBD	Cefla	SM	TBD	1999	Sander-02-DUST6-2.10
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-F	TBD	2001	Panel Cleaner -02-DUST6-2.11
Automatic Spray Booth	TBD	Cefla	EcoSprayer Easy W	TBD	2001	Booth-02-VOC8-2.12a
Belt Cleaner	TBD	Cefla	EcoSprayer Easy W	TBD	2001	Belt Cleaner -01-VOC8-2.12b
Drying Oven - Flash Zone	TBD	Cefla	FV 3/3500/133 /48/AER/S	TBD	2001	Oven Flash Zone-02-VOC8-2.13a
Drying Oven - Cure Zone	TBD	Cefla	FV 3/3500/133 /48/AER/S	TBD	2001	Oven Cure Zone-02-VOC8-2.13b
Drying Oven - Cool Down Zone	TBD	Cefla	FV 3/3500/133 /48/AER/S	TBD	NA	Oven Cool Down-02-VOC8-2.13c

EQUIPMENT TYPE (Number)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.	EQUIP ID NO.
Finishing Line 3						
Enclosed Manual Spray BoothTBD	TBD	TBD	TBD	2001	Booth-03- VOC9-3.10	NA
Drying Enclosure	TBD	TBD	TBD	TBD	2001	Enclosure-03-VOC9-3.11
Drying Oven	TBD	TBD	TBD	TBD	2001	Oven-03-VOC9-3.12
Finishing Line 4						
Automatic Spray Booth	TBD	Cefla	EcoSprayer EasyD	TBD	2001	Booth-04- VOC10-4.10a
Belt Cleaner	TBD	Cefla	EcoSprayer EasyD	TBD	2001	Booth-04-VOC10-4.10b
Roll Coater	TBD	Sorbini	T/20-MR/S/R	TBD	2001	RollCoater-04-VOC10- 4.11
Wiping Conveyor - A	TBD	Cefla	TN 4000/W/S/C	TBD	2001	Conveyor-04- VOC10 – 4.12a
Wiping Conveyor - B	TBD	Cefla	TN 7500/W/S	TBD	2001	Conveyor-04- VOC10 – 4.12b
Wiping Conveyor - C	TBD	Cefla	TN 7500/W/S	TBD	2001	Conveyor-04- VOC10 - 4.12c
Drying Oven - Flash/Cure Zone	TBD	Cefla	FV2/3500/133/ 30/AE	TBD	2001	Oven Flash/Cure Zone-04- VOC10 – 4.13a
Drying Oven - Cool Zone	TBD	Cefla	FV2/3500/133/ 30/AE	TBD	2001	Oven Cool Down Zone- 04- VOC10 – 4.13b
Panel Cleaning Machine	TBD	Sorbini	VS/33-ACT-F	TBD	1999	Panel Cleaner –04-DUST7 – 4.14
Automatic Spray Booth	TBD	Cefla	EcoSprayer Easy W	TBD	1999	Booth-04- VOC11 – 4.15a
Belt Cleaner	TBD	Cefla	EcoSprayer Easy W	TBD	1999	Booth-04- VOC11 – 4.15b
Drying Oven - Flash Zone	TBD	Cefla	FV4/3500/133/ 88/AER	TBD	1999	Oven Flash Zone-04- VOC11 – 4.16a
Drying Oven - Cure Zone	TBD	Cefla	FV4/3500/133/ 88/AER	TBD	1999	Oven Cure Zone-04- VOC11 – 4.16b
Drying Oven - Cool Down ZoneTBD	TBD	Cefla	FV4/3500/133/ 88/AER	1999	1999	Oven Cool Down-04- VOC11 – 4.16c
Woodworking Operations and Panel Cleaning/Sanding PM Control Systems						
Dust Collector - 1	11,500 cfm @ 18" WG, Elev. 3225'	Torit/ Donaldson	24-FM	N/A	1986	BH-1

EQUIPMENT TYPE (Number)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.	EQUIP ID NO.
Dust Collector - 2	10,000 cfm @ 17' WG, Elev. 3225'	Torit/ Donaldson	HPT-64	IG 536364	1999	BH-2
Dust Collector - 3	10,000 cfm @ 17' WG, Elev. 3225'	Torit/ Donaldson	484-RF	TBD	TBD	BH-3
Fuel Burning Equipment						
Power Boiler 1	4.5 MMBtu/hr	RBI	33HB40004R2CC TS	TBD	TBD	PB-1
Power Boiler 2	4.5 MMBtu/hr	RBI	33HB40004R2CC TS	TBD	TBD	PB-2
Power Boiler 3	4.5 MMBtu/hr	RBI	33HB40004R2CC TS	TBD	TBD	PB-3
Co-ray-vac heating system	2.54 MMBtu/ hr	Co Ray Vac	CRV-A6 CRV-B10	420145 9043750	1986 1993	CRV-1
Regenerative thermal oxidizer	10 MMBtu/hr; 60,000 scfm	MEGTEC Systems	ENTERPRISE II -700-95	TBD	TBD	RTO-1

TBD = To Be Determined

N/A = Not Available